

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001

TIME: 16:39:39

Input Set : A:\Yamamto1.app

Output Set: N:\CRF3\03232001\I435770.raw

Does Not Comply
Corrected Diskette Needed

ppr 1-15

4 <110> APPLICANT: YAMAMOTO, Takuo
 5 MARUTA, Kazuhiko
 6 KUBOTA, Michio
 7 FUKUDA, Shigeharu
 8 MIYAKE, Toshio
 10 <120> TITLE OF INVENTION: NON-REDUCING SACCHARIDE-FORMING ENZYME,
 11 TREHALOSE-RELEASING ENZYME, AND PROCESS FOR PRODUCING
 12 SACCHARIDES USING THE ENZYMES
 14 <130> FILE REFERENCE: YAMAMOTO=16A
 16 <140> CURRENT APPLICATION NUMBER: 09/435,770
 17 <141> CURRENT FILING DATE: 1999-11-08
 19 <150> PRIOR APPLICATION NUMBER: JP 258,394/1998
 20 <151> PRIOR FILING DATE: 1998-09-11
 22 <150> PRIOR APPLICATION NUMBER: JP 352,252/1998
 23 <151> PRIOR FILING DATE: 1998-12-11
 25 <150> PRIOR APPLICATION NUMBER: JP 16,931/1999
 26 <151> PRIOR FILING DATE: 1999-01-26
 28 <160> NUMBER OF SEQ ID NOS: 39
 30 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

241 <210> SEQ ID NO: 7
 242 <211> LENGTH: 2268
 243 <212> TYPE: DNA
 244 <213> ORGANISM: ARTHROBACTER sp.S34
 246 <400> SEQUENCE: 7
 E--> 247 cccgccagta cctaccgcct tcagatctcg gcggagtcca ccctcttcga cgcgccgcgc
 248 60
 E--> 249 atcgtgccct acctgcaccg cctcgccgcc gactggctgt acctctcgcc gctgctcgag
 250 120
 E--> 251 tccgagtcgg gtccttcgca cggtacgac gtggtcgacc actcccgct cgacgccgcc
 252 180
 E--> 253 cgcgccgggc cggaggggct cgccgagctc tccgtgcgg cgacagagcg cggcatgggc
 254 240
 E--> 255 gtcgtcgtcg acatcgtgcc caaccacgtc ggcgtcgca cgccgaaggc gaaccgctgg
 256 300
 E--> 257 tggtagggagc ttctggccc tggacagcgg tcggagtacg ccgactactt cgacatcgac
 258 360
 E--> 259 tgggagttcg gcggcgccag gctgcgcctg cccgtgctcg gcgacggccc cgacgagctc
 260 420
 E--> 261 gacgcgtga gactggatgg cgacgagctc gtctactacg agcaccgctt cccgatcgcc
 262 480
 E--> 263 gagggcaccg gcggcgccac cccgcgcgag gtgcacgacc ggcagcacta cgagctgatg
 264 540
 E--> 265 tcgtggcggc gggccgacca cgacctaac taccgccgt tcttcgccgt gaacacgctc

global format error
 (see item 1 on
 Error Summary
 sheet)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
TIME: 16:39:39

Input Set : A:\Yamamt01.app
Output Set: N:\CRF3\03232001\I435770.raw

266 600
E--> 267 gccgccgtac gcgtcgaaga cccgcgcgtg ttcgacgaca cccaccgcga gatcggccgc
268 660
E--> 269 tggatcgccg agggcctcgt cgacggcctg cgcgtcgacc accccgacgg gctgcgcgcc
270 720
E--> 271 cccggcgact acctgcgcg tctcgccgag ctcgcccagg gcaggccgat ctgggtcgag
272 780
E--> 273 aagatcatcg agggcgacga gcggtatgcc ccgcagtggc ccacgcgcgg caccaccggc
274 840
E--> 275 tacgacgcgc tggccgggat cgaccgggtg ctcgtcgacc ccgcggggca gcatccgctc
276 900
E--> 277 acccagatcg tcgacgaggc ggcaggcagc ccccggcgct gggccgagct ggttcccag
278 960
E--> 279 cgcaagcggg ccgtcgcccg cggcatcctg aactccgaga tccgcgcgct cgcgcgcgaa
280 1020
E--> 281 ctccggagagg tcgcccgcga cgtcgaagac gcgctcgtcg agatcgccgc cgcctgtgcc
282 1080
E--> 283 gtctaccgca gctacctgcc gttcgggcgc gagcacctcg acgaagccgt ggcgcgcgcg
284 1140
E--> 285 caggccgcag ccccccagct cgaggccgac ctcgcgcgcg tcggcgagc gctcgccgac
286 1200
E--> 287 ccgggcaacc ccgcgcgct ccgcttcag cagaccagcg gcatgatcat ggccaagggc
288 1260
E--> 289 gtcgaggaca acgcgttcta ccgtacccc cggctcacct cgtgaccga ggtcggggga
290 1320
E--> 291 gaccgcgagc tgttcgcgat cgacgcggcc gccttcacg cggcgagcg cgaccgcgc
292 1380
E--> 293 gcccggtgc ccgagtcgat gacgacgctg accaccacg acaccaagcg cagcgaagac
294 1440
E--> 295 acccgggcgc ggatcacgc gctcgccgag gcccgcgaac gctggcgggc cttcctgacc
296 1500
E--> 297 gaggtcggcg ggctcatcg aacgggcgac cgggtgctgg agaacctgat ctggcaggcg
298 1560
E--> 299 atcgtcggcg cgtggccggc gagccgggag cggctcgagg cctacgcgct gaaggccgcg
300 1620
E--> 301 cgcaagccg gcgagtcgac cgactggatc gacggcgacc ccgcgttcga agagcggctg
302 1680
E--> 303 acccgcttg tcacggtcgc cgtcgaggag ccgctcgtg acgagctgct cgagcggctc
304 1740
E--> 305 gtcgacgagc tgacggcggc cgggtactcc aacggcctcg cggcgaagct gctgcagctg
306 1800
E--> 307 ctcgcccccg gaacccccga cgtgtaccag ggcacggaac gctgggaccg gtcgctggtg
308 1860
E--> 309 gaccgggaca accgtcgccc cgtggatttc gccgcggcat ccgagctgct cgaccgctc
310 1920
E--> 311 gacggcggtt gggggccgcc cgtcgacgag accggcgcg tcaagacgct cgtcgtctcc
312 1980
E--> 313 cgcgcgctgc ggtgcgcgc cgaccggccc gagctgttca ccgcgtacca cccggtcacg
314 2040

*same
error*

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
TIME: 16:39:39

Input Set : A:\Yamamt01.app
Output Set : N:\CRF3\03232001\I435770.raw

E--> 315 gcgcgcggcg cgcaggccga gcacctgacg ggttcgacc gcggcgggcg gatcgccctg
316 2100
E--> 317 gccacccgcc tgccgctcgg cctcgccgcc gcaggcggtt ggggcgacac ggtcgtcgac
318 2160
E--> 319 gtcggcgagc ggagcctcgg cgacgagctg accggccgcg aggcccgcg agcggcgcgc
320 2220
E--> 321 gtggccgagt tgttcgccga ctaccccgtc gccctgctgg tggagaca
322 2268
325 <210> SEQ ID NO: 8
326 <211> LENGTH: 28
327 <212> TYPE: DNA
328 <213> ORGANISM: ARTHROBACTER sp.S34
330 <400> SEQUENCE: 8
E--> 331 ttttttaata aaatcaggag gaaaaaat
332 28
529 <210> SEQ ID NO: 17
530 <211> LENGTH: 1725
531 <212> TYPE: DNA
532 <213> ORGANISM: ARTHROBACTER sp.S34
534 <400> SEQUENCE: 17
E--> 535 atgaaccgac gattcccggt ctgggcgccc caggccgcgc aggtgacgct cgtcgtgggc
536 60
E--> 537 caaggccgcg ccgaactccc gctgaccgcg gacgagaacg gatggtgggc tcttcagcag
538 120
E--> 539 ccgtggggacg gcggcccccga cctcgtcgac tacggctacc tcgtcgacgg caagggcccc
540 180
E--> 541 ttcgcccacc cgcggtcgtt gcggcagccg cgcggcgtgc acgagctcgg ccgcgaattc
542 240
E--> 543 gaccccgccc gctacgcgtg gggcgacgac ggatggcgcg gccgagacct caccggagcc
544 300
E--> 545 gtgatctacg aactgcacgt cggcaccttc acccctgagg gaacgctgga cagcgccatc
546 360
E--> 547 cgtcgccctc accacctggt gcgcctcggc gtcgacgcgg tcgagctgct gcccgtcaac
548 420
E--> 549 gcgttcaacg gcacccacgg ctggggctac gacgggggtg tctggtacgc ggtgcacgag
550 480
E--> 551 ccctacggcg gcccgaggc gtaccagcgc ttcgtcgacg cctgccacgc ccgcggcctc
552 540
E--> 553 gccgtcgtg aggacgtcgt ctacaaccac ctggggccga gcggcaacca cctgcccgcg
554 600
E--> 555 ttcggcccct acctcgggtc gggcgccgcc aacacctggg gcgacgcgct gaacctcgac
556 660
E--> 557 gggccgctct ccgacgaggt gcggcggtac atcatcgaca acgcggtgta ctggctgcgc
558 720
E--> 559 gacatgcacg ccgacgggct gcggctcgac gccgtgcacg cgctgcgcga cgcgccgcg
560 780
E--> 561 ctgcacctgc tcgaagagct cgcgcgccgc gtcgacgagc tggcggggcg gctcggccgg
562 840
E--> 563 ccgctgacgc tcacgcccga gagcgacctg aacgaccgga agctgatccg ctcccgcgcg

Same

RAW SEQUENCE LISTING DATE: 03/23/2001
 PATENT APPLICATION: US/09/435,770 TIME: 16:39:39

Input Set : A:\Yamamtol.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

564 900
E--> 565 gcgcacggct acggcctcga cgcccagtgg gacgacgacg tgcaccacgc ggtgcacgcc
566 960
E--> 567 aacgtgaccg gcgagaccgt cggctactac gccgacttcg gcgggctcgg cgccctcgtc
568 1020
E--> 569 aaggtgttcc agcgcggctg gttccacgac ggcacctggt cgagcttccg cgagcggcac
570 1080
E--> 571 cagggccggc cgtctgaccc cgacatcccg ttccgcgggc tcgtcgctt cgcgaggat
572 1140
E--> 573 cagcaccagg tcggcaaccg agcggctcgg gaccgcatgt cggcgcagggt cggcgagggt
574 1200
E--> 575 tcgtctgcgc ccgcggcggc gctcgtgctg ctgcggccgt tcaccccgat gctgttcagt
576 1260
E--> 577 ggcgaggagt ggggcgcgcg caccctgtgg cagttcttca cctcccaccc cgagcccgag
578 1320
E--> 579 ctgggggagg cgacggcgcg cgggcgcacg gccgagttcg cccgcatggg ctgggacccg
580 1380
E--> 581 gcagtcgtgc ccgaccgca ggaccggcc acctcgccc gctcgcaact ggactggtec
582 1440
E--> 583 gagcccgagc gggaaccgca cgcgggctg ctgccttct acaccgacct gatcgcgctg
584 1500
E--> 585 cggcgcgagc tgccggtcga tgcccgggc cgcgagggtg atgccgacga ggcgcgcggc
586 1560
E--> 587 gtcttcgctg tcagccggcg cccgctgcgg gtcacggtcg cgtcgcgcc cggaaccggc
588 1620
E--> 589 ggggtgcccg agcacggggg cctcgtgctc gcctacggcg aggtgcgcgc cggcgccgcc
590 1680
E--> 591 ggactgcacc tcgacggggc gggagccgcg atcgtgcgcc tcgag
592 1725
595 <210> SEQ ID NO: 18
596 <211> LENGTH: 23
597 <212> TYPE: DNA
598 <213> ORGANISM: ARTHROBACTER sp.S34
600 <400> SEQUENCE: 18
E--> 601 gcsaaccgst ggtggtggga cgt
602 23
605 <210> SEQ ID NO: 19
606 <211> LENGTH: 3252
607 <212> TYPE: DNA
608 <213> ORGANISM: ARTHROBACTER sp.S34
610 <220> FEATURE:
611 <221> NAME/KEY: 5'UTR
612 <222> LOCATION: (1)..(742)
614 <220> FEATURE:
615 <221> NAME/KEY: CDS
616 <222> LOCATION: (743)..(3013)
618 <220> FEATURE:
619 <221> NAME/KEY: 3'UTR
620 <222> LOCATION: (742)..(3014)

```

same

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

622 <400> SEQUENCE: 19
E--> 623 atgccgacga cgaacttgag cgcgttctcg ggcacccgcg agagcgggcc gcgcacggcg
624 60
E--> 626 gcgccctagt ccacgacgag cagcatcgcg gcgagcgccg cgacgacggc gaccggcagg
627 120
E--> 629 cgcccctgat tgctggcgaa ggtgagcacg atgaagacca cctcgaggcc ctcgagcaac
630 180
E--> 632 acacctttga acgacacggg gaacgcgtac caatcgagga ccccgaaacc gctctcgcg
633 240
E--> 635 cgggcgctct cggccgcctc gacctgacgc cggaaggcag cctcctcgtc acggagagcc
636 300
E--> 638 ctgcgccctg ccgcgcgcag caccgccttg cgcagccagc cgagcccgaa gacgagcagc
639 360
E--> 641 aacccgccga cgacgaggcg cagcacggcc agcggcagca gcaggatcgc gggaccgacg
642 420
E--> 644 agcgcgacgg ccgcggccag caccaccacg gcgacggcgg cacctgtcag cgccgaccgc
645 480
E--> 647 cagctgcggg tggcgccgac cgcgacgacg atcgtggtcg cctccaccgc ctcgaccacg
648 540
E--> 650 caggcgagga acacggcggc gaacagggcg acggcgggtca tcggcccagc agacggttga
651 600
E--> 653 ccatcacggc acgctagcgc cattgtctac aggaagggcc aagacgcccg caacgcggca
654 660
E--> 656 cccgtggacg gcgcgtaccg gcgtgtgacc gatcgtgtca accggtggcg cccgcccga
657 720
E--> 659 gcacctgcgt agattcgcc tc gtg ccc gcc agt acc tac cgc ctt cag atc
660 772
661 Met Pro Ala Ser Thr Tyr Arg Leu Gln Ile
662 1 5 10
E--> 664 tcg gcg gag ttc acc ctc ttc gac gcg gcg cgc atc gtg ccc tac ctg
665 820
666 Ser Ala Glu Phe Thr Leu Phe Asp Ala Ala Arg Ile Val Pro Tyr Leu
667 15 20 25
E--> 669 cac cgc ctc ggc gcc gac tgg ctg tac ctc tcg ccg ctg ctc gag tcc
670 868
671 His Arg Leu Gly Ala Asp Trp Leu Tyr Leu Ser Pro Leu Leu Glu Ser
672 30 35 40
E--> 674 gag tcg ggc tcc tcg cac ggc tac gac gtg gtc gac cac tcc cgc gtc
675 916
676 Glu Ser Gly Ser Ser His Gly Tyr Asp Val Val Asp His Ser Arg Val
677 45 50 55
E--> 679 gac gcc gcc cgc ggc ggg ccg gag ggg ctc gcc gag ctc tcc cgt gcg
680 964
681 Asp Ala Ala Arg Gly Gly Pro Glu Gly Leu Ala Glu Leu Ser Arg Ala
682 60 65 70
E--> 684 gcg cac gag cgc ggc atg ggc gtc gtc gtc gac atc gtg ccc aac cac
685 1012
686 Ala His Glu Arg Gly Met Gly Val Val Val Asp Ile Val Pro Asn His
687 75 80 85 90

```

Done

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

E--> 689 gtc ggc gtc gcg acg ccg aag gcg aac cgc tgg tgg tgg gac gtt ctg
690 1060
691 Val Gly Val Ala Thr Pro Lys Ala Asn Arg Trp Trp Trp Asp Val Leu
692          95          100          105
E--> 694 gcc cgt gga cag cgg tcg gag tac gcc gac tac ttc gac atc gac tgg
695 1108
696 Ala Arg Gly Gln Arg Ser Glu Tyr Ala Asp Tyr Phe Asp Ile Asp Trp
697          110          115          120
E--> 699 gag ttc ggc ggc ggc agg ctg cgc ctg ccc gtg ctc ggc gac ggc ccc
700 1156
701 Glu Phe Gly Gly Gly Arg Leu Arg Leu Pro Val Leu Gly Asp Gly Pro
702          125          130          135
E--> 704 gac gag ctc gac gcg ctg aga gtg gat ggc gac gag ctc gtc tac tac
705 1204
706 Asp Glu Leu Asp Ala Leu Arg Val Asp Gly Asp Glu Leu Val Tyr Tyr
707          140          145          150
E--> 709 gag cac cgc ttc ccg atc gcc gag ggc acc ggc ggc ggc acc ccg cgc
710 1252
711 Glu His Arg Phe Pro Ile Ala Glu Gly Thr Gly Gly Gly Thr Pro Arg
712 155          160          165          170
E--> 714 gag gtg cac gac cgg cag cac tac gag ctg atg tcg tgg cgg cgg gcc
715 1300
716 Glu Val His Asp Arg Gln His Tyr Glu Leu Met Ser Trp Arg Arg Ala
717          175          180          185
E--> 719 gac cac gac ctc aac tac cgc cgc ttc ttc gcc gtg aac acg ctc gcc
720 1348
721 Asp His Asp Leu Asn Tyr Arg Arg Phe Phe Ala Val Asn Thr Leu Ala
722          190          195          200
E--> 724 gcc gta cgc gtc gaa gac ccg cgc gtg ttc gac gac acc cac cgc gag
725 1396
726 Ala Val Arg Val Glu Asp Pro Arg Val Phe Asp Asp Thr His Arg Glu
727          205          210          215
E--> 729 atc ggc cgc tgg atc gcc gag ggc ctc gtc gac ggc ctg cgc gtc gac
730 1444
731 Ile Gly Arg Trp Ile Ala Glu Gly Leu Val Asp Gly Leu Arg Val Asp
732          220          225          230
E--> 734 cac ccc gac ggg ctg cgc gcc ccc ggc gac tac ctg cgc cgt ctc gcc
735 1492
736 His Pro Asp Gly Leu Arg Ala Pro Gly Asp Tyr Leu Arg Arg Leu Ala
737 235          240          245          250
E--> 739 gag ctc gcc caa ggc agg ccg atc tgg gtc gag aag atc atc gag ggc
740 1540
741 Glu Leu Ala Gln Gly Arg Pro Ile Trp Val Glu Lys Ile Ile Glu Gly
742          255          260          265
E--> 744 gac gag cgg atg ccc ccg cag tgg ccc atc gcc ggc acc acc ggc tac
745 1588
746 Asp Glu Arg Met Pro Pro Gln Trp Pro Ile Ala Gly Thr Thr Gly Tyr
747          270          275          280
E--> 749 gac gcg ctg gcc ggg atc gac cgg gtg ctc gtc gac ccc gcg ggc gag

```

Same

RAW SEQUENCE LISTING

DATE: 03/23/2001

PATENT APPLICATION: US/09/435,770

TIME: 16:39:39

Input Set : A:\Yamamt01.app

Output Set: N:\CRF3\03232001\I435770.raw

```

750 1636
751 Asp Ala Leu Ala Gly Ile Asp Arg Val Leu Val Asp Pro Ala Gly Glu
752      285      290      295
E--> 754 cat ccg ctc acc cag atc gtc gac gag gcg gca ggc agc ccc cgg cgc
755 1684
756 His Pro Leu Thr Gln Ile Val Asp Glu Ala Ala Gly Ser Pro Arg Arg
757      300      305      310
E--> 759 tgg gcc gag ctg gtt ccc gag cgc aag cgg gcc gtc gcc cgc ggc atc
760 1732
761 Trp Ala Glu Leu Val Pro Glu Arg Lys Arg Ala Val Ala Arg Gly Ile
762 315      320      325      330
E--> 764 ctg aac tcc gag atc cgc cgc gtc gcc cgc gaa ctc gga gag gtc gcc
765 1780
766 Leu Asn Ser Glu Ile Arg Arg Val Ala Arg Glu Leu Gly Glu Val Ala
767      335      340      345
E--> 769 gcc gac gtc gaa gac gcg ctc gtc gag atc gcc gcc gcc ctg tcc gtc
770 1828
771 Gly Asp Val Glu Asp Ala Leu Val Glu Ile Ala Ala Ala Leu Ser Val
772      350      355      360
E--> 774 tac cgc agc tac ctg ccg ttc ggg cgc gag cac ctc gac gaa gcc gtg
775 1876
776 Tyr Arg Ser Tyr Leu Pro Phe Gly Arg Glu His Leu Asp Glu Ala Val
777      365      370      375
E--> 779 gcc gcc gcg cag gcc gca gcc ccc cag ctc gag gcc gac ctc gcc gcc
780 1924
781 Ala Ala Ala Gln Ala Ala Ala Pro Gln Leu Glu Ala Asp Leu Ala Ala
782      380      385      390
E--> 784 gtc gcc gca gcg ctc gcc gac ccg ggc aac ccc gcc gcg ctc cgc ttc
785 1972
786 Val Gly Ala Ala Leu Ala Asp Pro Gly Asn Pro Ala Ala Leu Arg Phe
787 395      400      405      410
E--> 789 cag cag acc agc ggc atg atc atg gcc aag ggc gtc gag gac aac gcg
790 2020
791 Gln Gln Thr Ser Gly Met Ile Met Ala Lys Gly Val Glu Asp Asn Ala
792      415      420      425
E--> 794 ttc tac cgc tac ccc cgg ctc acc tcg ctg acc gag gtc ggg gga gac
795 2068
796 Phe Tyr Arg Tyr Pro Arg Leu Thr Ser Leu Thr Glu Val Gly Gly Asp
797      430      435      440
E--> 799 ccg agc ctg ttc gcg atc gac gcg gcc gcc ttc cac gcg gcg cag cgc
800 2116
801 Pro Ser Leu Phe Ala Ile Asp Ala Ala Ala Phe His Ala Ala Gln Arg
802      445      450      455
E--> 804 gac cgc gcc gcc cgg ctg ccc gag tcg atg acg acg ctg acc acc cac
805 2164
806 Asp Arg Ala Ala Arg Leu Pro Glu Ser Met Thr Thr Leu Thr Thr His
807      460      465      470
E--> 809 gac acc aag cgc agc gaa gac acc cgg gcg cgg atc acc gcg ctc gcc
810 2212

```

same

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

811 Asp Thr Lys Arg Ser Glu Asp Thr Arg Ala Arg Ile Thr Ala Leu Ala
812 475 480 485 490
E--> 814 gag gcc ccc gaa cgc tgg cgg cgc ttc ctg acc gag gtc ggc ggg ctc
815 2260
816 Glu Ala Pro Glu Arg Trp Arg Arg Phe Leu Thr Glu Val Gly Gly Leu
817 495 500 505
E--> 819 atc gga acg ggc gac cgg gtg ctg gag aac ctg atc tgg cag gcg atc
820 2308
821 Ile Gly Thr Gly Asp Arg Val Leu Glu Asn Leu Ile Trp Gln Ala Ile
822 510 515 520
E--> 824 gtc ggc cgc tgg cgg cgc agc cgg gag cgg ctc gag gcc tac gcg ctg
825 2356
826 Val Gly Ala Trp Pro Ala Ser Arg Glu Arg Leu Glu Ala Tyr Ala Leu
827 525 530 535
E--> 829 aag gcc cgc cgc gaa gcc ggc gag tcg acc gac tgg atc gac ggc gac
830 2404
831 Lys Ala Ala Arg Glu Ala Gly Glu Ser Thr Asp Trp Ile Asp Gly Asp
832 540 545 550
E--> 834 ccc cgc ttc gaa gag cgg ctg acc cgc ctg gtc acg gtc gcc gtc gag
835 2452
836 Pro Ala Phe Glu Glu Arg Leu Thr Arg Leu Val Thr Val Ala Val Glu
837 555 560 565 570
E--> 839 gag cgc ctc gtg cac gag ctg ctc gag cgg ctc gtc gac gag ctg acg
840 2500
841 Glu Pro Leu Val His Glu Leu Leu Glu Arg Leu Val Asp Glu Leu Thr
842 575 580 585
E--> 844 gcg gcc ggg tac tcc aac ggc ctc gcg gcg aag ctg ctg cag ctg ctc
845 2548
846 Ala Ala Gly Tyr Ser Asn Gly Leu Ala Ala Lys Leu Leu Gln Leu Leu
847 590 595 600
E--> 849 gcc ccc gga acc ccc gac gtg tac cag ggc acg gaa cgc tgg gac cgg
850 2596
851 Ala Pro Gly Thr Pro Asp Val Tyr Gln Gly Thr Glu Arg Trp Asp Arg
852 605 610 615
E--> 854 tcg ctg gtg gac ccg gac aac cgt cgc ccc gtg gat ttc gcc gcg gca
855 2644
856 Ser Leu Val Asp Pro Asp Asn Arg Arg Pro Val Asp Phe Ala Ala Ala
857 620 625 630
E--> 859 tcc gag ctg ctc gac cgc ctc gac ggc ggc tgg cgg ccg ccc gtc gac
860 2692
861 Ser Glu Leu Leu Asp Arg Leu Asp Gly Gly Trp Arg Pro Pro Val Asp
862 635 640 645 650
E--> 864 gag acc ggc gcg gtc aag acg ctc gtc gtc tcc cgc gcg ctg cgg ctg
865 2740
866 Glu Thr Gly Ala Val Lys Thr Leu Val Val Ser Arg Ala Leu Arg Leu
867 655 660 665
E--> 869 cgc cgc gac cgg ccc gag ctg ttc acc gcg tac cac ccg gtc acg gcg
870 2788
871 Arg Arg Asp Arg Pro Glu Leu Phe Thr Ala Tyr His Pro Val Thr Ala

```

Done

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

      872          670          675          680
E--> 874 cgc ggc gcg cag gcc gag cac ctg atc ggc ttc gac cgc ggc ggc gcg
      875 2836
      876 Arg Gly Ala Gln Ala Glu His Leu Ile Gly Phe Asp Arg Gly Gly Ala
      877          685          690          695
E--> 879 atc gcc ctg gcc acc cgc ctg ccg ctc ggc ctc gcc gcc gca ggc ggc
      880 2884
      881 Ile Ala Leu Ala Thr Arg Leu Pro Leu Gly Leu Ala Ala Gly Gly
      882          700          705          710
E--> 884 tgg ggc gac acg gtc gtc gac gtc ggc gag cgg agc ctg cgc gac gag
      885 2932
      886 Trp Gly Asp Thr Val Val Asp Val Gly Glu Arg Ser Leu Arg Asp Glu
      887 715          720          725          730
E--> 889 ctg acc ggc cgc gag gcc cgc gga gcg gcg cgc gtg gcc gag ttg ttc
      890 2980
      891 Leu Thr Gly Arg Glu Ala Arg Gly Ala Ala Arg Val Ala Glu Leu Phe
      892          735          740          745
E--> 894 gcc gac tac ccc gtc gcc ctg ctg gtg gag aca tgaaccgacg attcccggtc
      895 3033
      896 Ala Asp Tyr Pro Val Ala Leu Leu Val Glu Thr
      897          750          755
E--> 899 tgggcgcccc aggcgcgcga ggtgacgtc gtcgtgggcc aaggccgcgc cgaactcccc
      900 3093
E--> 902 ctgaccgcgc acgagaacgg atggtgggct cttcagcagc cgtggggacgg cggccccgac
      903 3153
E--> 905 ctgctcgact acggctacct cgtcgacggc aaggggccct tcgccgaccc gcggtcgtg
      906 3213
E--> 908 cggcagccgc gcggcgtgca cgagctcggc cgcgaattc
      909 3252
      913 <210> SEQ ID NO: 20
      914 <211> LENGTH: 26
      915 <212> TYPE: DNA
      916 <213> ORGANISM: Artificial Sequence
      918 <220> FEATURE:
      919 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
      921 <400> SEQUENCE: 20
E--> 922 atgcccgcga gtacctaccg ccttca
      923 26
      926 <210> SEQ ID NO: 21
      927 <211> LENGTH: 25
      928 <212> TYPE: DNA
      929 <213> ORGANISM: Artificial Sequence
      931 <220> FEATURE:
      932 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
      934 <400> SEQUENCE: 21
E--> 935 tcatgtctcc accagcaggg cgacg
      936 25
      939 <210> SEQ ID NO: 22
      940 <211> LENGTH: 50

```

same

RAW SEQUENCE LISTING DATE: 03/23/2001
 PATENT APPLICATION: US/09/435,770 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

941 <212> TYPE: DNA
942 <213> ORGANISM: Artificial Sequence
944 <220> FEATURE:
945 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
947 <400> SEQUENCE: 22
E--> 948 aattcttttt taataaaatc aggaggaatc tagatgttta ctagtctgca
949 50
952 <210> SEQ ID NO: 23
953 <211> LENGTH: 42
954 <212> TYPE: DNA
955 <213> ORGANISM: Artificial Sequence
957 <220> FEATURE:
958 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
960 <400> SEQUENCE: 23
E--> 961 gactagtaaa catctagatt cctcctgatt ttattaaaaa ag
962 42
965 <210> SEQ ID NO: 24
966 <211> LENGTH: 33
967 <212> TYPE: DNA
968 <213> ORGANISM: Artificial Sequence
970 <220> FEATURE:
971 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
973 <400> SEQUENCE: 24
E--> 974 aaatctagat gcccgccagt acctaccgcc ttc
975 33
978 <210> SEQ ID NO: 25
979 <211> LENGTH: 33
980 <212> TYPE: DNA
981 <213> ORGANISM: Artificial Sequence
983 <220> FEATURE:
984 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
986 <400> SEQUENCE: 25
E--> 987 aaaactagtt tatcatgtct ccaccagcag ggc
988 33
991 <210> SEQ ID NO: 26
992 <211> LENGTH: 22
993 <212> TYPE: DNA
994 <213> ORGANISM: Artificial Sequence
996 <220> FEATURE:
997 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
999 <400> SEQUENCE: 26
E--> 1000 atcgggtgatg tcggcgatat ag
1001 22
1004 <210> SEQ ID NO: 27
1005 <211> LENGTH: 29
1006 <212> TYPE: DNA
1007 <213> ORGANISM: Artificial Sequence
1009 <220> FEATURE:
1010 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC

```

same

RAW SEQUENCE LISTING DATE: 03/23/2001
 PATENT APPLICATION: US/09/435,770 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

1012 <400> SEQUENCE: 27
E--> 1013 gtactggcgg gcatattttt tcctcctga
1014 29
1017 <210> SEQ ID NO: 28
1018 <211> LENGTH: 31
1019 <212> TYPE: DNA
1020 <213> ORGANISM: Artificial Sequence
1022 <220> FEATURE:
1023 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1025 <400> SEQUENCE: 28
E--> 1026 aatcaggagg aaaaaatatg cccgccagta c
1027 31
1030 <210> SEQ ID NO: 29
1031 <211> LENGTH: 22
1032 <212> TYPE: DNA
1033 <213> ORGANISM: Artificial Sequence
1035 <220> FEATURE:
1036 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1038 <400> SEQUENCE: 29
E--> 1039 tcgacgatct ggggtgagcgg at
1040 22
1043 <210> SEQ ID NO: 30
1044 <211> LENGTH: 22
1045 <212> TYPE: DNA
1046 <213> ORGANISM: Artificial Sequence
1048 <220> FEATURE:
1049 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1051 <400> SEQUENCE: 30
E--> 1052 tcgacgagca cccggtcgat cc
1053 22
1056 <210> SEQ ID NO: 31
1057 <211> LENGTH: 26
1058 <212> TYPE: DNA
1059 <213> ORGANISM: Artificial Sequence
1061 <220> FEATURE:
1062 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1064 <400> SEQUENCE: 31
E--> 1065 cartgggagc aygaggtgca ycaygc
1066 26
1069 <210> SEQ ID NO: 32
1070 <211> LENGTH: 2218
1071 <212> TYPE: DNA
1072 <213> ORGANISM: Artificial Sequence
1074 <220> FEATURE:
1075 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1077 <220> FEATURE:
1078 <221> NAME/KEY: CDS
1079 <222> LOCATION: (477)..(2201)
1081 <220> FEATURE:

```

same

see item 10 on Error Summary sheet

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

1082 <221> NAME/KEY: 3'UTR
 1083 <222> LOCATION: (2202)..(2218)
 E--> 1085 <400> SEQUENCE: 33 *change to 32*
 E--> 1086 ctgcagctgc tcgcccccg aaaccccgac gtgtaccagg gcacggaacg ctgggaccgg
 1087 60
 E--> 1089 tcgctggtgg acccggaaca ccgtcgcccc gtggatttcg ccgcggcatc cgagctgctc
 1090 120
 E--> 1092 gaccgcctcg acggcggtcg gcggcgcccc gtcgacgaga ccggcgcggt caagacgctc
 1093 180
 E--> 1095 gtcgtctccc gcgcgtcgcg gctgcgcgcg gaccggcccc agctgttcac cgcgtaccac
 1096 240
 E--> 1098 ccggtcacgg cgcgcggcgc gcaggccgag cacctgatcg gcttcgaccg cggcgggcgcg
 1099 300
 E--> 1101 atcgccctgg ccaccgcct gcgcctcgcc ctcgcgcgcg caggcggtcg gggcgacacg
 1102 360
 E--> 1104 gtcgtcgacg tcggcgagcg gacgtcgcg gacgagctga ccggccgcga ggcccgcgga
 1105 420
 E--> 1107 gcggcgcgcg tggccgagtt gtccgcccac taccccgctg ccctgctggt ggagac atg
 1108 479
 1109 Met
 1110 1
 E--> 1112 aac cga cga ttc ccg gtc tgg gcg ccc cag gcc gcg cag gtg acg ctc
 1113 527
 1114 Asn Arg Arg Phe Pro Val Trp Ala Pro Gln Ala Ala Gln Val Thr Leu
 1115 5 10 15
 E--> 1117 gtc gtg ggc caa ggc cgc gcc gaa ctc ccg ctg acc cgc gac gag aac
 1118 575
 1119 Val Val Gly Gln Gly Arg Ala Glu Leu Pro Leu Thr Arg Asp Glu Asn
 1120 20 25 30
 E--> 1122 gga tgg tgg gct ctt cag cag ccg tgg gac ggc ggc ccc gac ctc gtc
 1123 623
 1124 Gly Trp Trp Ala Leu Gln Gln Pro Trp Asp Gly Gly Pro Asp Leu Val
 1125 35 40 45
 E--> 1127 gac tac ggc tac ctc gtc gac ggc aag ggc ccc ttc gcc gac ccg cgg
 1128 671
 1129 Asp Tyr Gly Tyr Leu Val Asp Gly Lys Gly Pro Phe Ala Asp Pro Arg
 1130 50 55 60 65
 E--> 1132 tcg ctg cgg cag ccg cgc ggc gtg cac gag ctc ggc cgc gaa ttc gac
 1133 719
 1134 Ser Leu Arg Gln Pro Arg Gly Val His Glu Leu Gly Arg Glu Phe Asp
 1135 70 75 80
 E--> 1137 ccc gcc cgc tac gcg tgg ggc gac gac gga tgg cgc ggc cga gac ctc
 1138 767
 1139 Pro Ala Arg Tyr Ala Trp Gly Asp Asp Gly Trp Arg Gly Arg Asp Leu
 1140 85 90 95
 E--> 1142 acc gga gcc gtg atc tac gaa ctg cac gtc ggc acc ttc acc cct gag
 1143 815
 1144 Thr Gly Ala Val Ile Tyr Glu Leu His Val Gly Thr Phe Thr Pro Glu
 1145 100 105 110

*same
format
env*

RAW SEQUENCE LISTING

DATE: 03/23/2001

PATENT APPLICATION: US/09/435,770

TIME: 16:39:39

Input Set : A:\Yamamt01.app

Output Set: N:\CRF3\03232001\I435770.raw

E--> 1147 gga acg ctg gac agc gcc atc cgt cgc ctc gac cac ctg gtg cgc ctc
 1148 863
 1149 Gly Thr Leu Asp Ser Ala Ile Arg Arg Leu Asp His Leu Val Arg Leu
 1150 115 120 125
 E--> 1152 ggc gtc gac gcg gtc gag ctg ctg ccc gtc aac gcg ttc aac ggc acc
 1153 911
 1154 Gly Val Asp Ala Val Glu Leu Leu Pro Val Asn Ala Phe Asn Gly Thr
 1155 130 135 140 145
 E--> 1157 cac ggc tgg ggc tac gac ggg gtg ctc tgg tac gcg gtg cac gag ccc
 1158 959
 1159 His Gly Trp Gly Tyr Asp Gly Val Leu Trp Tyr Ala Val His Glu Pro
 1160 150 155 160
 E--> 1162 tac ggc ggc ccg gag gcg tac cag cgc ttc gtc gac gcc tgc cac gcc
 1163 1007
 1164 Tyr Gly Gly Pro Glu Ala Tyr Gln Arg Phe Val Asp Ala Cys His Ala
 1165 165 170 175
 E--> 1167 cgc ggc ctc gcc gtc gtg cag gac gtc gtc tac aac cac ctg ggc ccg
 1168 1055
 1169 Arg Gly Leu Ala Val Val Gln Asp Val Val Tyr Asn His Leu Gly Pro
 1170 180 185 190
 E--> 1172 agc ggc aac cac ctg ccc gac ttc ggc ccc tac ctc ggg tgc ggc gcc
 1173 1103
 1174 Ser Gly Asn His Leu Pro Asp Phe Gly Pro Tyr Leu Gly Ser Gly Ala
 1175 195 200 205
 E--> 1177 gcc aac acc tgg ggc gac gcg ctg aac ctc gac ggg ccg ctc tcc gac
 1178 1151
 1179 Ala Asn Thr Trp Gly Asp Ala Leu Asn Leu Asp Gly Pro Leu Ser Asp
 1180 210 215 220 225
 E--> 1182 gag gtg cgg cgg tac atc atc gac aac gcg gtg tac tgg ctg cgc gac
 1183 1199
 1184 Glu Val Arg Arg Tyr Ile Ile Asp Asn Ala Val Tyr Trp Leu Arg Asp
 1185 230 235 240
 E--> 1187 atg cac gcc gac ggg ctg cgg ctc gac gcc gtg cac gcg ctg cgc gac
 1188 1247
 1189 Met His Ala Asp Gly Leu Arg Leu Asp Ala Val His Ala Leu Arg Asp
 1190 245 250 255
 E--> 1192 gcc cgc gcg ctg cac ctg ctc gaa gag ctc gcc gcc cgc gtc gac gag
 1193 1295
 1194 Ala Arg Ala Leu His Leu Leu Glu Glu Leu Ala Ala Arg Val Asp Glu
 1195 260 265 270
 E--> 1197 ctg gcg ggc gag ctc ggc cgg ccg ctg acg ctc atc gcc gag agc gac
 1198 1343
 1199 Leu Ala Gly Glu Leu Gly Arg Pro Leu Thr Leu Ile Ala Glu Ser Asp
 1200 275 280 285
 E--> 1202 ctg aac gac ccg aag ctg atc cgc tcc cgc gcg gcg cac ggc tac ggc
 1203 1391
 1204 Leu Asn Asp Pro Lys Leu Ile Arg Ser Arg Ala Ala His Gly Tyr Gly
 1205 290 295 300 305
 E--> 1207 ctc gac gcc cag tgg gac gac gac gtg cac cac gcg gtg cac gcc aac

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamtol.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

1208 1439
1209 Leu Asp Ala Gln Trp Asp Asp Asp Val His His Ala Val His Ala Asn
1210          310          315          320
E--> 1212 gtg acc ggc gag acc gtc ggc tac tac gcc gac ttc ggc ggg ctc ggc
1213 1487
1214 Val Thr Gly Glu Thr Val Gly Tyr Tyr Ala Asp Phe Gly Gly Leu Gly
1215          325          330          335
E--> 1217 gcc ctc gtc aag gtg ttc cag cgc ggc tgg ttc cac gac ggc acc tgg
1218 1535
1219 Ala Leu Val Lys Val Phe Gln Arg Gly Trp Phe His Asp Gly Thr Trp
1220          340          345          350
E--> 1222 tcg agc ttc cgc gag cgg cac cac ggc cgg ccg ctc gac ccc gac atc
1223 1583
1224 Ser Ser Phe Arg Glu Arg His His Gly Arg Pro Leu Asp Pro Asp Ile
1225          355          360          365
E--> 1227 ccg ttc cgc cgg ctc gtc gcc ttc gcg cag gat cac gac cag gtc ggc
1228 1631
1229 Pro Phe Arg Arg Leu Val Ala Phe Ala Gln Asp His Asp Gln Val Gly
1230 370          375          380          385
E--> 1232 aac cga gcg gtc ggc gac cgc atg tcg gcg cag gtc ggc gag ggt tcg
1233 1679
1234 Asn Arg Ala Val Gly Asp Arg Met Ser Ala Gln Val Gly Glu Gly Ser
1235          390          395          400
E--> 1237 ctc gcc gcc gcg gcg gcg ctc gtg ctg ctc ggc ccg ttc acc ccg atg
1238 1727
1239 Leu Ala Ala Ala Ala Leu Val Leu Leu Gly Pro Phe Thr Pro Met
1240          405          410          415
E--> 1242 ctg ttc atg ggc gag gag tgg ggc gcg cgc acc ccg tgg cag ttc ttc
1243 1775
1244 Leu Phe Met Gly Glu Glu Trp Gly Ala Arg Thr Pro Trp Gln Phe Phe
1245          420          425          430
E--> 1247 acc tcc cac ccc gag ccc gag ctg ggg gag gcg acg gcg cgc ggg cgc
1248 1823
1249 Thr Ser His Pro Glu Pro Glu Leu Gly Glu Ala Thr Ala Arg Gly Arg
1250          435          440          445
E--> 1252 atc gcc gag ttc gcc cgc atg ggc tgg gac ccg gca gtc gtg ccc gac
1253 1871
1254 Ile Ala Glu Phe Ala Arg Met Gly Trp Asp Pro Ala Val Val Pro Asp
1255 450          455          460          465
E--> 1257 ccg cag gac ccg gcc acc ttc gcc cgc tcg cac ctg gac tgg tcc gag
1258 1919
1259 Pro Gln Asp Pro Ala Thr Phe Ala Arg Ser His Leu Asp Trp Ser Glu
1260          470          475          480
E--> 1262 ccc gag cgg gaa ccg cac gcg ggc ctg ctc gcc ttc tac acc gac ctg
1263 1967
1264 Pro Glu Arg Glu Pro His Ala Gly Leu Leu Ala Phe Tyr Thr Asp Leu
1265          485          490          495
E--> 1267 atc gcg ctg cgg cgc gag ctg ccg gtc gat gcg ccg gcg cgc gag gtg
1268 2015

```

same

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/435,770

DATE: 03/23/2001
 TIME: 16:39:39

Input Set : A:\Yamamt01.app
 Output Set: N:\CRF3\03232001\I435770.raw

```

1269 Ile Ala Leu Arg Arg Glu Leu Pro Val Asp Ala Pro Ala Arg Glu Val
1270          500          505          510
E--> 1272 gat gcc gac gag gcg cgc ggc gtc ttc gcg ttc agc cgc ggc ccg ctg
1273 2063
1274 Asp Ala Asp Glu Ala Arg Gly Val Phe Ala Phe Ser Arg Gly Pro Leu
1275          515          520          525
E--> 1277 cgg gtc acg gtc gcg ctg cgc ccc gga ccg gtc ggg gtg ccc gag cac
1278 2111
1279 Arg Val Thr Val Ala Leu Arg Pro Gly Pro Val Gly Val Pro Glu His
1280 530          535          540          545
E--> 1282 ggg ggc ctc gtg ctc gcc tac ggc gag gtg cgc gcc ggc gcc gcc gga
1283 2159
1284 Gly Gly Leu Val Leu Ala Tyr Gly Glu Val Arg Ala Gly Ala Ala Gly
1285          550          555          560
E--> 1287 ctg cac ctc gac ggg ccg gga gcc gcg atc gtg cgc ctc gag
1288 2201
1289 Leu His Leu Asp Gly Pro Gly Ala Ala Ile Val Arg Leu Glu
1290          565          570          575
E--> 1292 tgacgcggct gggtacc
1293 2218
1296 <210> SEQ ID NO: 33
1297 <211> LENGTH: 25
1298 <212> TYPE: DNA
1299 <213> ORGANISM: Artificial Sequence
1301 <220> FEATURE:
1302 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1304 <400> SEQUENCE: 33
E--> 1305 atgaaccgac gattcccggt ctggg
1306 25
1308 <210> SEQ ID NO: 34
1309 <211> LENGTH: 25
1310 <212> TYPE: DNA
1311 <213> ORGANISM: Artificial Sequence
1313 <220> FEATURE:
1314 <223> OTHER INFORMATION: Description of Artificial Sequence:SYNTHETIC
1316 <400> SEQUENCE: 34
E--> 1317 tcactcgagg cgcacgatcg cggct
1318 25

```

same

VERIFICATION SUMMARY DATE: 03/23/2001
PATENT APPLICATION: US/09/435,770 TIME: 16:39:40

Input Set : A:\Yamamt01.app
Output Set: N:\CRF3\03232001\I435770.raw

L:247 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:7
M:254 Repeated in SeqNo=7
L:331 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:28 SEQ:8
L:535 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:17
M:254 Repeated in SeqNo=17
L:601 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:23 SEQ:18
L:623 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:19
M:254 Repeated in SeqNo=19
L:922 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:26 SEQ:20
L:935 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:25 SEQ:21
L:948 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:50 SEQ:22
L:961 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:42 SEQ:23
L:974 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:33 SEQ:24
L:987 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:33 SEQ:25
L:1000 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:22 SEQ:26
L:1013 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:29 SEQ:27
L:1026 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:31 SEQ:28
L:1039 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:22 SEQ:29
L:1052 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:22 SEQ:30
L:1065 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:31
L:1065 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:31
L:1065 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:31
L:1065 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:26 SEQ:31
L:1085 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:32 differs:33
L:1086 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:32
M:254 Repeated in SeqNo=32
L:1305 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:25 SEQ:33
L:1317 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:25 SEQ:34
L:1330 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:36 SEQ:35
L:1343 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:36 SEQ:36
L:1356 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:28 SEQ:37
L:1369 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:28 SEQ:38
L:1382 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:22 SEQ:39